AMENDMENTS TO THE SPECIFICATION:

Amend the specification as follows:

Replace the paragraph beginning at page 1, line 15, with the following rewritten paragraph:

In a frequency band around a millimeter wave, a circuit using a waveguide, namely, a microwave transmission circuit is often used. Generally, the waveguide can be made small in sectional size with increase of the frequency, ~~on a base of~~ based on ½ wavelength as a standard. Further, it is known that it is possible to make the size inside the waveguide ~~small to a size of~~ as small as $\varepsilon_r^{-1/2}$ times by filling a space of the cavity inside the waveguide with a dielectric substance, thus making it a small size. This is called a dielectric waveguide circuit (The basis of microwave circuit and the application thereof p239-243, by Yoshihiro Konishi, published by Sogo Denshi Shuppan, in 1990). Here, ε_r indicates a relative dielectric constant of the dielectric substance.

Replace the paragraph beginning at page 2, line 3, with the following rewritten paragraph:

In application of these waveguides to a transmission line, a resonator, and so on, signal energy loss in the electromagnetic field causes a problem. Energy loss in an electric conductor and a dielectric material is predominant in the ~~lose~~ loss described above. Loss in a conductor increases as surface resistance increases, and loss in a dielectric material increases as dielectric loss (tan δ) increases.

Replace the paragraph beginning at page 2, line 17, with the following rewritten paragraph:

On the other hand, it is known that on the surface of a MgO single crystal (001) (since it is a cubic crystal system, the faces (001), (010), and (100) have substantially the same physical properties), a copper oxide superconducting film being in a strong c-axis crystal orientation is obtained by a plurality of methods such as a sputtering process, a pulse laser deposition (PLD) process and so on. As a method of depositing film, a method can be cited in which the film is deposited under high temperatures of about 600 to 800°C on a substrate in a reduced oxygen atmosphere. It is known that ~~the c-axis oriented film~~ it is easy to pass a superconductive current along the film surface direction of a c-axis oriented film under a low temperature of the critical temperature Tc or less, compared with an a-axis oriented film. The critical temperature Tc of the copper oxide super conductor is known to be several ~~ten K~~ tens of Kelvins or more, depending on the material.

Replace the paragraph beginning at page 3, line 8, with the following rewritten paragraph:

A waveguide circuit is generally ~~easy to be~~ easily made low-loss but ~~easy to become~~ easily becomes large in size compared with a planar type circuit such as a microstrip line type, a coplanar type, and so on.

Replace the paragraph beginning at page 6, line 9, with the following rewritten paragraph:

Fixtures 103 and 106 are made of brass and are used to fix (bond) the MgO block 101 on which the copper oxide superconducting film 104 is formed, via indium layers 102 and 107 respectively. A pedestal 108 is a brass plate for fixing the MgO block 101 on which the copper oxide superconducting film 104 is formed. The fixtures 103, 106 are fixed on the pedestal 108 at each two places with screws of M1.2, that is, metric screws having a threaded portion with nominal diameters of 1.2 mm. Through this step, the MgO block 101 on which the copper oxide superconducting film 104 is formed is fixed mechanically on the pedestal 108. The MgO block 101 and the brass members (the fixtures 103, 106 and the pedestal 108) are different in thermal expansion coefficient from each other. Indium layers 102 and 107 which lie between the MgO block and the brass members serve as a buffer to absorb the above-described differences of the thermal expansion coefficient.

Please amend the paragraph beginning at page 10, line 14, with the following rewritten paragraph:

Fixtures 133 and 136 are bonded directly to the copper oxide superconducting film 104. A pedestal 138 is also bonded directly to the copper oxide superconducting film 104. The thermal expansion coefficient of materials used in the fixtures 133, 136 and the pedestal 138 is close to that of the MgO block 101, and the material of the fixtures and the pedestal are ~~Kovar~~ KOVAR, Invar, sintered magnesium oxide, stabilized zirconia, partially stabilized zirconia, and so on. Further, as material for the fixtures 133, 136 and the pedestal 138, polytetrafluoroethylene (PTFE), ethylene

tetrafluoroethylene (ETFE) and the like can be used, which are deformable at a temperature of 100 K or less.

Replace the paragraph beginning at page 11, line 1, with the following rewritten paragraph:

As described above, the fixtures 133, 136 and the pedestal 138 are used for fixing the MgO block 101 on which the copper oxide superconducting film 104 is formed, and a portion to make close contact directly with the copper oxide superconducting film 104 is preferably comprised of any one or more kinds of Fe-Ni-based alloys with low thermal coefficient for a metal, such as ~~Kovar~~ KOVAR, Invar and the like ~~which have rather a low thermal expansion coefficient for a metal~~, sintered magnesium oxide, stabilized zirconia, partially stabilized zirconia, and PTFE, ETFE which are deformable even at 100 K or less.

Replace the paragraph beginning at page 11, line 13, with the following rewritten paragraph:

Fig. 4 shows a dielectric waveguide having a 45° bent structure according to the third embodiment of the present invention. The dielectric waveguide has a transmission line having a 45° bent structure including a portion bent at a right angle. A single crystal MgO block 201 is a rectangular ~~parallelopiped~~ parallelepiped block which is bent at a right angle, and has a face of 45 degrees bent to the XY face and YZ face, and 90 degrees bent to the XZ face. Hereinafter, this face is called a 45 degrees bent face. In the surfaces of the MgO block 201, each face of the XY face, XZ face and YZ face is any crystal orientation face among (100), (010) or (001). The 45 degrees bent faces are crystal orientation faces (011), (101) or (110).

Replace the paragraph beginning at page 11, line 27, with the following rewritten paragraph:

In the MgO block 201 surfaces, copper oxide superconducting films 203 are formed on the XY face, XZ face and YZ face ~~excepting~~ except for an input port face and an output port face. Main component of the copper oxide superconducting film 203 is a Y-Ba-Cu-O series substance consisting of $YBa_2Cu_3O_x$ (x=6.8 to 7.0), and the copper oxide superconducting film 203 is formed to have a c-axis crystal orientation perpendicular to the face of the MgO block 201. The thickness of the copper oxide superconducting film 203 is, for instance, about 0.6 μm.

Replace the paragraph beginning at page 17, line 1, with the following rewritten paragraph:

The above-described copper oxide superconducting film is preferably an oxide high-temperature superconductor composed of any one kind or more showing the crystal structure anisotropy of ~~Bin1Srn2Can3Cun4On5~~ $\underline{Bi}_{n1}\underline{Sr}_{n2}\underline{Ca}_{n3}\underline{Cu}_{n4}\underline{O}_{n5}$ ($1.8 \leq n1 \leq 2.2$, $1.8 \leq n2 \leq 2.2$, $0.9 \leq n3 \leq .2$, $1.8 \leq n4 \leq 2.2$, $7.8 \leq n5 \leq 8.4$), ~~Pbk1Bik2Srk3Cak4Cuk5Ok6~~ $\underline{Pb}_{k1}\underline{Bi}_{k2}\underline{Sr}_{k3}\underline{Ca}_{k4}\underline{Cu}_{k5}\underline{O}_{k6}$ ($1.8 \leq k1+k2 \leq 2.2$, $0 \leq k1 \leq 0.6$, $1.8 \leq k3 \leq 2.2$, $1.8 \leq k4 \leq 2.2$, $1.8 \leq k5 \leq 2.2$, $9.5 \leq k6 \leq 10.8$), ~~Ym1Bam2Cum3Om4~~ $\underline{Y}_{m1}\underline{Ba}_{m2}\underline{Cu}_{m3}\underline{O}_{m4}$ ($0.5 \leq m1 \leq 1.2$, $1.8 \leq m2 \leq 2.2$, $2.5 \leq m3 \leq 3.5$, $6.6 \leq m4 \leq 7.0$), ~~REp1Bap2Cup3Op4~~ $\underline{RE}_{p1}\underline{Ba}_{p2}\underline{Cu}_{p3}\underline{O}_{p4}$ (RE: consisting of any of La, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb, Lu among rare-earth elements, $0.5 \leq m1 \leq 1.2$, $1.8 \leq m2 \leq 2.2$, $2.5 \leq m3 \leq 3.5$, $6.6 \leq m4 \leq 7.0$).